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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 181 bib abs hitind hitstr retable tot

L81 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1004833 HCAPLUS Full-text

DN 143:287913

- TI Pigment concentrates based on phthalocyanine pigments.
- IN Weber, Joachim; Opravil, Manfred; Venera, Magali; Macholdt,
  Hans-Tobias
- PA Clariant GmbH, Germany
- SO PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

r AN.	PATENT NO.			KIND DATE		APPLICATION NO.				D	DATE						
ΡI	WO 200	50853	 866		A1	_	2005	0915		WO 2	005-	EP18	00		2	0050	222 <
	W:	AE,	AG,	AL,	AM,	AT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	GE,
		GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚĒ,	KG,	ΚP,	KR,	KΖ,	LC,	LK,
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NA,	NI,	NO,
		NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SY,
		ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RV	V: BW,	GH,	GM,	ΚE,	LS,	MW,	ΜZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		AZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,
		MR,	ΝE,	SN,	TD,	ΤG											
	DE 102	200401	0284		A1		2005	0922		DE 2	004-	1020	0401	0284	2	0040	303
	CA 255	8502			A1		2005	0915		CA 2	005-	2558	502		2	0050	222 <
	EP 172	23202			A1		2006	1122		EP 2	005-	7154	34		2	0050	222 <
	R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	ΙΤ,	LI,	LT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR		
	CN 193	34197			Α		2007	0321		CN 2	005-	8000	9292		2	0050	222 <

Ι

	BR 2005008367	A	20070731	BR	2005-8367	20050222 <
	JP 2007527936	T	20071004	JP	2007-501163	20050222 <
	US 2007186815	A1	20070816	US	2006-591578	20061129 <
PRAI	DE 2004-102004010284	A	20040303			
	WO 2005-EP1800	M	20050222	<	•	
OS	MARPAT 143:287913				·	
GT						

AB A pigment concentrate comprising blue copper phthalocynine pigments (PhP) and a dispersing agent I (n = 1 - 4) at PhP - I ratios (99.9:0.1) - (75:25) is used for dyeing plastics, color filters, inks for ink-jet printing, electrophotog. toners and developers. Thus, a typical concentrate prepared by mixing 16 h at 40° 450 weight parts of NaCl, 75 weight parts of Pigment Blue 15:6, 3.75 weight parts of a dispersing agent I (n = 1) and 110 mL of diethylene glycol and treating with 2,500 weight parts of aqueous HCl is for manufacture a wine red paint having small viscosity.

ICICM C09B0067-22 ICS C09B0067-20

CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

IT147-14-8D, Pigment Blue 15, reaction products with imidazole derivs.

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(Pigment Blue 15, Pigment Blue 15:0, Pigment Blue 15:1, Pigment Blue 15:2, Pigment Blue 15:3, Pigment Blue 15:4, Pigment Blue 15:6; pigment concentrate comprising blue copper phthalocynine pigments and a dispersing agent for dyeing plastics)

ΙT 29636-87-1DP, reaction products with pigment

blue 15

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dispersing agent; pigment concentrate comprising blue copper phthalocynine pigments and a dispersing agent for dyeing plastics, color filters, inks for ink-jet printing, electrophotog, toners and developers)

ΙT 147-14-8D, Pigment Blue 15, reaction products

with imidazole derivs.

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(Pigment Blue 15, Pigment Blue 15:0, Pigment Blue 15:1, Pigment Blue 15:2, Pigment Blue 15:3, Pigment Blue 15:4, Pigment Blue 15:6; pigment concentrate comprising blue copper phthalocynine pigments and a dispersing agent for dyeing plastics)

RN 147-14-8 HCAPLUS

3

CN Copper, [29H, 31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A



IT 29636-87-1DP, reaction products with pigment

blue 15

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dispersing agent; pigment concentrate comprising blue copper phthalocynine pigments and a dispersing agent for dyeing plastics, color filters, inks for ink-jet printing, electrophotog. toners and developers)

RN 29636-87-1 HCAPLUS

CN 1H-Imidazole-5-methanol, 4-methyl- (CA INDEX NAME)

RETABLE

Referenced Author	Year   VOL	PG	Referenced	Work   Referenced
(RAU)	(RPY) (RVL)	(RPG)	(RWK)	File
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10 / 591578 4

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Hoechst Aktiengesellsch | 1989 |
                                         |EP 0321919 A
                                                              HCAPLUS
Nippon Kayaku Kk
                      |1997 |
                                         |JP 09137075 A
                                                              |HCAPLUS
                                  1
Sumitomo Chemical Compa | 1995 |
                                         |EP 0659842 A
                                  1
                                                              |HCAPLUS
Toyo Ink Manufacturing | 1994 |
                                         IGB 2275477 A
                                  -
                                                              HCAPLUS
L81
    ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
AN
     2004:719906 HCAPLUS Full-text
DN
     141:208583
TΙ
     Production of transparent pigment preparations based on
     perylene-3, 4, 9, 10-tetracarboxylic diimide
ΙN
    Weber, Joachim; Opravil, Manfred; Dietz, Erwin
PΑ
    Clariant GmbH, Germany
SO
     Ger. Offen., 15 pp.
     CODEN: GWXXBX
DT
     Patent
LA
     German
FAN.CNT 1
     PATENT NO.
                        KIND
                               DATE
                                         APPLICATION NO.
                                                                  DATE .
                                          _____
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                               _____
     DE 10307557
PΙ
                        A1
                               20040902
                                         DE 2003-10307557
                                                                20030221
    WO 2004074384
                         A1
                               20040902
                                         WO 2004-EP868
                                                                  20040131
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
            GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
            LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO
        RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
            BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
            MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
            GQ, GW, ML, MR, NE, SN, TD, TG
    EP 1597323
                         Α1
                               20051123
                                           EP 2004-707135
                                                                  20040131
    EP 1597323
                               20061220
                         В1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
                       Α
                               20060322 CN 2004-80004757 20040131
     CN 1751104
                        \mathbf{T}
     JP 2006518400
                               20060810 JP 2006-501673
                                                                20040131
    ES 2279343
                        Т3
                               20070816 ES 2004-4707135
                                                                20040131
    US 2006135774
                        A1
                               20060622 US 2005-546500
                                                                 20050819
PRAI DE 2003-10307557 A WO 2004-EP868 W
                               20030221
                        W
                               20040131
    MARPAT 141:208583
OS
     The title pigments, which are economical and have good rheol. properties, are
ΑB
     prepared from perylene-3,4,9,10-tetracarboxylic diimide (I) or its Cl or Br
     derivs. and are milled under specified conditions. Milling I in the presence
     of a pigment dispersant [5-(hydroxymethyl)- 4-methylimidazole derivative of
     P.V. 23] for 30 min at 80^{\circ} and power d. 0.45 \, \text{lW/L} milling room gave a pigment
     dispersion with good rheol. and tinctorial strength.
IC
     ICM C09B0005-62
     ICS C09B0067-32; C09B0067-04
CC
     41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
     Sensitizers)
    Section cross-reference(s): 25
ΙT
    29636-87-1D, 5-(Hydroxymethyl)-4-
    methylimidazole, reaction products with
    pigment Violet 23 135934-43-9 162065-10-3
    215247-95-3D, Pigment Violet 23,
    reaction products with methylolmethylimidazole
     744245-67-8
    RL: MOA (Modifier or additive use); USES (Uses)
        (dispersants for transparent pigment prepns. based on
```

perylene-3, 4, 9, 10-tetracarboxylic diimide)

5

IT 29636-87-1D, 5-(Hydroxymethyl)-4methylimidazole, reaction products with
pigment Violet 23 215247-95-3D,
Pigment Violet 23, reaction
products with methylolmethylimidazole
RL: MOA (Modifier or additive use); USES (Uses)
 (dispersants for transparent pigment prepns. based on
 perylene-3,4,9,10-tetracarboxylic diimide)
RN 29636-87-1 HCAPLUS
CN 1H-Imidazole-5-methanol, 4-methyl- (CA INDEX NAME)

RN 215247-95-3 HCAPLUS

CN Diindolo[2,3-c:2',3'-n]triphenodioxazine, 9,19-dichloro-5,15-diethyl-5,15-dihydro- (CA INDEX NAME)

L81 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:596751 HCAPLUS Full-text

DN 111:196751

TI Heterocyclic pigments for organic polymers and coating materials with good rheological properties

IN Dietz, Erwin; Kapaun, Gustav; Kappert, Michael; Prokschy, Frank; Kroh,
Adolf; Urban, Manfred

PA Hoechst A.-G., Fed. Rep. Ger.

SO Eur. Pat. Appl., 21 pp. CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	EP 321919 EP 321919 EP 321919	A2 A3 B1	19890628 19911030 19940209	EP 1988-121275	19881220
	R: CH, DE, FR,				
	DE 3838814	A1	19890706	DE 1988-3838814	19881117
	US 4986852	A	19910122	US 1988-286894	19881220
	DK 8807146	A	19890623	DK 1988-7146	19881221
	DK 8807146	A	19890623	DK 1988-7146	19881221

	DK 169629	В1	19941227		
	JP 01213366	A	19890828	JP 1988-320725	19881221
	JP 2650993	B2	19970910		
	CA 1338668	С	19961022	CA 1988-586550	19881221
PRAI	DE 1987-3743619	Α	19871222		
	DE 1988-3838814	Α	19881117		
GI					

AΒ The title pigments R[CH2A(R1)(R2)R3]n (A = 5- or 6-membered aromatic or heterocyclic residue containing N and/or S and/or O to which a C atom or methylene groups is bound; P = polycyclic pigment residue; R1, R2 = H, C1-4 alkyl, C2 alkylene, aryl; R3 = H, C1-4 alkyl, C1-3 hydroxyalkyl, C2 alkylene; n = 0.001-0.2), which have good rheol. properties and are thus useful in lacquers, printing inks, polymers, textile spinning solns., etc., are prepared C. I. Pigment Orange 43 (I) was reacted with 4 -methyl-5-(hydroxymethyl) imidazole

hydrochloride in the presence of H2SO4.H2O at  $105^{\circ}$  for 4 h, producing II (n = .apprx.0.5), which was ground with addnl. I, producing II (n = .apprx.0.025)which was used to pigment an alkyd-melamine resin lacquer.

ΙĊ ICM C09B0069-00

ICS C08K0005-03

CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 37, 40, 42

ΙT 128-69-8 147-14-8, C.I. Pigment

> 980-26-7, 2,9-Dimethylquinacridone Blue 15 215247-95-3

RL: USES (Uses)

(pigment compns. containing, having good rheol. properties) 128-69-8DP, 3,4,9,10-Perylenetetracarboxylic acid dianhydride, reaction ΙT products with paraformaldehyde and imidazole 147-14-8DP, Copper phthalocyanine, reaction products with heterocyclic 288-32-4DP, Imidazole, reaction products with perylenetetracarboxylic acid dianhydride and paraformaldehyde 636-72-6DP, 2-Hydroxymethylthiophene, reaction products with polycyclic 693-98-1DP, 2-Methylimidazole, reaction products with diphenylaminoterephthalic acid paraformaldehyde 700-06-1DP, 3-Hydroxymethylindole, reaction products with polycyclic pigments 1883-75-6DP, 2,5-Bishydroxymethylfuran, reaction products with polycyclic pigments 4216-02-8DP, C.I. Pigment Red 194, reaction products with heterocyclic compds. 4424-06-0DP, C.I. Pigment Orange 43, reaction products with heterocyclic compds. 5521-31-3DP, reaction products with paraformaldehyde and imidazole 10109-95-2DP, reaction products with methylimidazole and paraformaldehyde 27472-36-2DP, 2-Hydroxymethylpyrrole, reaction products with polycyclic pigments 30525-89-4DP, Paraformaldehyde, reaction products with perylenetetracarboxylic acid dianhydride and imidazole 38585-62-5DP, reaction products with

polycyclic pigments 54660-00-3DP, reaction products with heterocyclic compds. 102365-78-6DP, reaction products with perylenetetracarboxylic

7

acid dimethylimide 215247-95-3DP, reaction products with heterocyclic compds.

RL: IMF (Industrial manufacture); PREP (Preparation)

(pigments, manufacture of, having good rheol. properties) 980-26-7DP, 2,9-Dimethylquinacridone, reaction products with

paraformaldehyde and methylimidazole 29636-87-1DP, 5-

Hydroxymethyl-4-methylimidazole,

reaction products with quinacridone

RL: IMF (Industrial manufacture); PREP (Preparation)

(pigments, manufacture of, with good rheol. properties)

IT 147-14-8, C.I. Pigment Blue 15 215247-95-3

RL: USES (Uses)

(pigment compns. containing, having good rheol. properties)

RN 147-14-8 HCAPLUS

ΙT

CN Copper, [29H,31H-phthalocyaninato(2-)- $\kappa$ N29, $\kappa$ N30, $\kappa$ N31,.ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 215247-95-3 HCAPLUS

CN Diindolo[2,3-c:2',3'-n]triphenodioxazine, 9,19-dichloro-5,15-diethyl-5,15-dihydro- (CA INDEX NAME)

IT 147-14-8DP, Copper phthalocyanine, reaction products with heterocyclic compds. 38585-62-5DP, reaction products with polycyclic pigments 215247-95-3DP, reaction products with heterocyclic compds.

RL: IMF (Industrial manufacture); PREP (Preparation) (pigments, manufacture of, having good rheol. properties)

RN 147-14-8 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c|c}
N & \overline{\phantom{a}} & N \\
N &$$

PAGE 2-A

RN 38585-62-5 HCAPLUS

CN 1H-Imidazole-5-methanol, 4-methyl-, hydrochloride (1:1) (CA INDEX NAME)

9

● HCl

RN 215247-95-3 HCAPLUS

CN Diindolo[2,3-c:2',3'-n]triphenodioxazine, 9,19-dichloro-5,15-diethyl-5,15-dihydro- (CA INDEX NAME)

IT 29636-87-1DP, 5-Hydroxymethyl-4-methylimidazole, reaction products with

quinacridone

RL: IMF (Industrial manufacture); PREP (Preparation) (pigments, manufacture of, with good rheol. properties)

RN 29636-87-1 HCAPLUS

CN 1H-Imidazole-5-methanol, 4-methyl- (CA INDEX NAME)

L81 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1982:36853 HCAPLUS Full-text

DN 96:36853

TI Dyes containing imidazolylmethyl groups and their use

IN Patsch, Manfred; Ruske, Manfred

PA BASF A.-G., Ger. Dem. Rep.

SO Eur. Pat. Appl., 93 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
					- <b></b>
ΡI	EP 34725	A2	19810902	EP 1981-100672	19810130

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EP 34725
                          А3
                                19820804
     EP 34725
                          В1
                                19840725
        R: BE, CH, DE, FR, GB, IT
                                                                   19800218
     DE 3006013
                                          DE 1980-3006013
                          Α1
                                19810820
     DE 3044563
                                                                   19801126
                          Α1
                                19820708
                                          DE 1980-3044563
PRAI DE 1980-3006013
                          Α
                                19800218
     DE 1980-3044563
                          Α
                              19801126
     MARPAT 96:36853
OS
GΙ
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#### \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Dyes of general structure I are prepared, where Q represents a dye residue (e.g. azo, phthalocyanine, anthraquinone, indigo, quinophthalone), R = H, C1-6 alkyl, or C2-6 alkenyl, R1 and R2 (independently) = H, C1-5 alkyl, or C2-5 alkenyl, R3 = C1-22 alkyl or C2-4 hydroxyalkyl, X- = anion, m = 0-5, n = 0-5, and  $1 \le (m + n) \le 5$ . I, which exhibit high substantivity on paper, are prepared by reaction of QHm+n with C-(hydroxymethyl)imidazoles or with imidazoles and HCHO in the presence of acid. Typical dyes are red II [80043-75-0], yellow III [80032-88-8], and red IV [79554-27-1].

IC C09B0069-00; D06P0001-02; D06P0001-41; D21H0003-80

CC 41-1 (Dyes, Fluorescent Brighteners, and Photographic Sensitizers) Section cross-reference(s): 43

116-71-2DP, reaction product with formaldehyde and 1-methylimidazole 128-64-3DP, reaction product with formaldehyde and 1-methylimidazole 1739-84-0DP, reaction products with azo dye and formaldehyde 4197-25-5DP, reaction products with 5-(hydroxymethyl)-

4-methylimidazole hydrochloride and sulfuric acid

38585-62-5DP, reaction products with C.I.

Solvent Black 3 and sulfuric acid 79554-26-0P 79554-27-1P 79554-28-2P 79554-29**-**3P 79554-30-6P 79554-51**-**1P 79554-52-2P 79554-56-6P 79554-53-3P 79554-55-5P 79554-54-4P 79554-58-8P 79554-99-7P 80019-34-7DP, reaction products with formaldehyde and 4-methylimidazole 80032-59-3P 80032-60-6P 80032-68-4P 80032-69-5P 80032-70-8P 80032-71-9P 80032-74-2P 80032-76-4P 80032-78-6P 80032-80-0P 80032-81-1P 80032-82-2P 80032-83-3P 80032-84-4P 80032-85-5P 80032**-**86-6P 80032-87-7P 80032-88-8P 80043-78-3P 80043-81-8DP, sulfo derivative 80043-79-4P 80043-86-3P 80057-50-7P RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye, manufacture of)

IT 82-20-2DP, reaction products with 5-(hydroxymethyl)-4-methylimidazole 128-66-5DP, reaction products with 1-ethylimidazole and formaldehyde 128-70-1DP, reacti

1-ethylimidazole and formaldehyde 128-70-1DP, reaction products with 1-ethylimidazole and formaldehyde 128-80-3DP, reaction products with 5-(hydroxymethyl)-4-methylimidazole

129-09-9DP, reaction products with formaldehyde and 4-methylimidazole 522-75-8DP, reaction products with 5-(hydroxymethyl)-

4-methylimidazole 1072-63-5DP, reaction products with copper phthalocyanine and formaldehyde 7098-07-9DP, reaction products with copper phthalocyanine and formaldehyde, tetrachlorozincate 13435-22-8DP, reaction products with copper phthalocyanine and formaldehyde 14154-42-8DP, reaction products with formaldehyde and 1-methylimidazole 36947-68-9DP, reaction products with copper

phthalocyanine and formaldehyde 52333-12-7DP, reaction products with 5-(hydroxymethyl)-4-methylimidazole

79499-09-5DP, reaction products with 5-(hydroxymethyl

11

)-4-methylimidazole 80019-27-8DP, reaction products with 1,2-dimethylimidazole and formaldehyde RL: MSC (Miscellaneous); PREP (Preparation) (dyes, manufacture of)

92-36-4DP, diazotized, coupling products with (4-methylimidazolyl)methylated N-benzyl-N-methylaniline 147-14-8DP, imidazolylmethylated and quaternized derivs. 288-32-4DP, reaction products with copper phthalocyanine and formaldehyde 614-30-2DP, (4-methylimidazolyl) methylated, coupling products with diazotized 2-(4-aminophenyl)-6-methylbenzothiazole 29636-87-1DP, reaction products with (dioxohydrindyl)benzoquinoline 66225-66-9DP, reaction products with formaldehyde and 4-methylimidazole 80019-20-1DP, reaction products with formaldehyde and 4-methylimidazole RL: PREP (Preparation)

(paper dyes, manufacture of)

IT 38585-62-5DP, reaction products with C.I.

Solvent Black 3 and sulfuric acid

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye, manufacture of)

RN 38585-62-5 HCAPLUS

CN 1H-Imidazole-5-methanol, 4-methyl-, hydrochloride (1:1) (CA INDEX NAME)

ΙT

● HCl

IT 147-14-8DP, imidazolylmethylated and quaternized derivs.

29636-87-1DP, reaction products with

(dioxohydrindyl)benzoquinoline

RL: PREP (Preparation)

(paper dyes, manufacture of)

RN 147-14-8 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31, ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A

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 $\frac{1}{N}$ 
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 $\frac{1}{N}$ 
 $\frac{1}{N}$ 

PAGE 2-A

RN 29636-87-1 HCAPLUS

CN 1H-Imidazole-5-methanol, 4-methyl- (CA INDEX NAME)

#### => d 182 bib abs hitind hitstr retable tot

L82 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:1210085 HCAPLUS Full-text

DN 147:477693

TI Color photoresist transfer materials suppressing reticulation, color filters and their manufacture, and displays therewith

IN Serizawa, Shinichiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 29pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
		<b>-</b>			<b>-</b>
PI	JP 2007279467	Α	20071025	JP 2006-107029	20060410
PRAI	JP 2006-107029		20060410		

AB The title materials comprise supports, color resist layers, intermediate layers, and cover films, where the intermediate layers contain ≥2 resins including those from unsatd. maleic acid, (meth)acrylic acid, and/or its anhydride, acrylate esters, and ethylenically unsatd. hydrocarbons. The intermediate layers provide uniform adhesion between the cover films and the resist layers, thus allowing defect-free transfer of the resist layers. Color filters forming filter elements and/or black matrixes with the color resist layers transferred from the above materials, are also claimed.

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

# IT 271582-84-4, CF Blue EX 3357

RL: TEM (Technical or engineered material use); USES (Uses)
(CF Blue EX 3383, color filter elements; color photoresist transfer
materials forming modified polyolefin-containing intermediate layers for
forming color filters)

# IT 271582-84-4, CF Blue EX 3357

RL: TEM (Technical or engineered material use); USES (Uses)

(CF Blue EX 3383, color filter elements; color photoresist transfer materials forming modified polyolefin-containing intermediate layers for forming color filters)

RN 271582-84-4 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM · 1

CRN 215247-95-3 CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8 CMF C32 H16 Cu N8 CCI CCS

PAGE 1-A

PAGE 2-A

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L82 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
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AN 2007:1089780 HCAPLUS Full-text

DN 147:408531

TI Cleaning treatment liquid composition useful for color filter producing process

IN Masuda; Toshiyuki; Tanaka, Mitsutoshi

PA Fujifilm Corporation, Japan

SO PCT Int. Appl., 33pp. CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PAN.	FAN.CNT 1																	
	PATENT NO.				KIN	D	DATE			APPL	ICAT	ION :	NO.		D	ATE		
		<b>-</b>					-											
ΡI	WO	2007	1081	86		A1		2007	0927	1	WO 2	006-	JP32	4768	•	2	00612	212
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	ΚM,	KN,	ΚP,
			KR,	ΚŻ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,
			MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,
			RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ТJ,	TM,	TN,	TR,	TT,	TΖ,
			UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW							
		RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
			IS,	ΙT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
			CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,
			GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,

KG, KZ, MD, RU, TJ, TM

JP 2007254510

A 20071004

JP 2006-77737

20060320

PRAI JP 2006-77737

A 20060320

AB The composition contains: (A) a basic compound, (B) ≥1 surfactant selected from an acetylene surfactant having ≥1 hydroxy, alkyl ether surfactant, and phenoxyoxyalkylene surfactant, and (C) a naphthalene surfactant. A typical composition comprised hydroxy group-containing alkyl ended ethoxylated phenol 0.3, Pelex NBL (sodium (1,1-dimethylethyl) - naphthalenesulfonate) 1.4, sodium carbonate monohydrate 0.7, sodium hydrocarbonate 0.3, ans water 97.3 parts.

CC 46-6 (Surface Active Agents and Detergents)

Section cross-reference(s): 73, 74

IT 271582-84-4, CF Blue EX 3357

RL: MOA (Modifier or additive use); USES (Uses)

(CF Blue EX 3383; cleaning treatment liquid composition useful for color filter producing process)

IT 271582-84-4, CF Blue EX 3357

RL: MOA (Modifier or additive use); USES (Uses)

(CF Blue EX 3383; cleaning treatment liquid composition useful for color filter producing process)

RN 271582-84-4 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-KN29,KN30,KN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3 CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

PAGE 2-A

R	Ε	Т	Α	В	L	Ε

.KETABLE				
Referenced Author	Year	VOL   PG	Referenced Work	Referenced
(RAU)	(RPY)	(RVL)   (RPG)	(RWK)	File
=======================================	+====+	-====+== <b>==</b> =	-+ <b>=====</b> ===============================	-+=======
Asahi Chemical Co Ltd	1999	İ	JP 11-106799 A	HCAPLUS
Fuji Photo Film Co Ltd	12002	1	JP 2002351091 A	HCAPLUS
Fuji Photo Film Co Ltd	12003	Ì	JP 2003005382 A	HCAPLUS
Fuji Photo Film Co Ltd	[2003 ]		JP 2003336097 A	HCAPLUS
Fuji Photo Film Co Ltd	12005	1	EP 1503247 A2	HCAPLUS
Fuji Photo Film Co Ltd	12005		EP 1553455 A2	HCAPLUS
Fuji Photo Film Co Ltd	2005		US 20050026092 A1	1
Fuji Photo Film Co Ltd	12005	1	US 20050136362 A1	HCAPLUS
Fuji Photo Film Co Ltd	12005		JP 2005049542 A	HCAPLUS
Fuji Photo Film Co Ltd	2005	I	JP 2005146171 A	HCAPLUS
Fuji Photo Film Co Ltd	2005	1	JP 2005196143 A	HCAPLUS
Fuji Photo Film Co Ltd	12005	!	JP 2005202392 A	HCAPLUS
Hitachi Chemical Co Ltd	11999	ł	JP 11-258819 A	HCAPLUS
Kao Corp	1995	1	JP 07-041974 A	HCAPLUS
Lion Corp	1998	1	JP 10-219283 A	HCAPLUS

- L82 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
- AN 2007:873390 HCAPLUS <u>Full-text</u>
- DN 147:265924
- $\mbox{{\fontfamily{\fontfamil}{\fontfamily{\fontfamil}{\fontfamil}{\fontfamil}{\fontfamil}{\fontfamil}{\fontfamil}{\fontfami$
- IN Aiki, Yasuhiro; Morishima, Shinichi; Sato, Morimasa; Ichihashi, Mitsuyoshi
- PA Fujifilm Corporation, Japan

17

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SO
     PCT Int. Appl., 133pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                           APPLICATION NO.
                                                                   DATE
                         ____
                                _____
                                            _____
PΙ
     WO 2007089040
                                20070809
                                            WO 2007-JP52293
                                                                   20070202
                          Α1
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP,
             KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,
             MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,
             RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
     JP 2007233376
                                20070913
                                            JP 2007-22983
                                                                   20070201
                          Α
PRAI JP 2006-26706
                                20060203
                          Α
AΒ
     A novel liquid crystal display device is disclosed. The liquid crystal
     display device comprises a first substrate, a second substrate, liquid crystal
     held between the first substrate and the second substrate, patterned layers
     divided into fine areas, disposed on the first substrate, comprising at least
     a patterned color filter layer and a patterned first optically anisotropic
     layer laminated in the direction of the normal line of the substrate, and a
     barrier wall disposed at a boundary portion of the adjacent fine areas of the
     patterned layers.
     74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
     271582-84-4, CF Blue EX 3357
IT
     RL: TEM (Technical or engineered material use); USES (Uses)
        (CF Blue EX 3383; liquid crystal display device and color film plate, and
        processes for producing the same)
ΙT
     271582-84-4, CF Blue EX 3357
     RL: TEM (Technical or engineered material use); USES (Uses)
        (CF Blue EX 3383; liquid crystal display device and color film plate, and
        processes for producing the same)
     271582-84-4 HCAPLUS
RN
     Copper, [29H, 31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka
CN
    ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-
    dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)
    CM
         1
    CRN 215247-95-3
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CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

PAGE 2-A

# RETABLE

Referenced Author (RAU)	Year   VOL  (RPY) (RVL)	(RPG)	Referenced Work (RWK)	Referenced   File
Dai Nippon Printing Co Dai Nippon Printing Co			S 20040156001 A1 P 2004240102 A	HCAPLUS   HCAPLUS
Dai Nippon Printing Co	2004		S 20060203164 A1	

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Dai Nippon Printing Co |2005 |
                                           JP 2005003733 A
                                                                 HCAPLUS
Dai Nippon Printing Co |2005 |
                                           IJP 2005275321 A
                                                                 IHCAPLUS
Nitto Denko Corporation | 2006 |
                                           |WO 2005116741 A1
                                                                 IHCAPLUS
Nitto Denko Corporation | 2006 |
                                           JP 2006011369 A
                                                                 | HCAPLUS
Nitto Denko Corporation | 2006 |
                                           IUS 20060170848 A1
Seiko Epson Corp
                       12006 1
                                           IUS 20060008930 A1
                                                                 IHCAPLUS
Seiko Epson Corp
                       12006
                                           JP 2006023462 A
                                                                 | HCAPLUS
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L82 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:787755 HCAPLUS Full-text

DN 147:177272

TI Color filter, its manufacturing method, and liquid crystal display device-

IN Terashima, Naohisa; Ito, Hideaki; Tanaka, Mitsutoshi; Nakamura, Hideyuki

PA Fuji Photo Film Co., Ltd., Japan .

SO Jpn. Kokai Tokkyo Koho, 37pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2007183513	Α	20070719	JP 2006-3017	20060110
PRAI	JP 2006-3017		20060110		

AB The method comprises forming a light-insulating barrier rib on a substrate, spraying red, green, and blue ink to areas separated by the barrier rib for forming a red, green, and blue colored layer. Each ink is polymerizable ink containing a colorant, a polymerizable compound and a polymerization initiator, in which solid content is ≥50 weight%. The red ink contains C.I.P.R. 254 0.80-0.96 g/m2 and C.I.P.R. 177 0.20-0.24 g/m2, the green ink contains C.I.P.G. 36 0.90-1.34 g/m2 and C.I.P.Y. 150 0.38-0.58 g/m2, and blue ink contains C.I.P.B. 15:6 0.59-0.67 g/m2 and C.I.P.V. 23 0.065-0.075 g/m2. The color filter manufactured by the method, has ≥2 colored pixels. The liquid crystal device with the color filter is also claimed. The method forms images with precise position and without color mixture, providing the color filter with broad color reproduction range and high contrast ratio, manufactured at low cost and high productivity.

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

IT **271582-84-4** 944110-92-3 944110-93-4

RL: TEM (Technical or engineered material use); USES (Uses)

(color filter using polymerizable ink for liquid crystal display)

IT 271582-84-4

RL: TEM (Technical or engineered material use); USES (Uses) (color filter using polymerizable ink for liquid crystal display)

RN 271582-84-4 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3

CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

$$\frac{1}{N}$$

PAGE 2-A



- L82 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
- AN 2007:759140 HCAPLUS Full-text
- DN 147:154149
- TI Transfers, manufacture of color filter substrates using the transfers, the thus manufactured substrates, and liquid crystal displays
- IN Ito, Korenari

10 / 591578 21

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 44pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	JP 2007178448	A	20070712	JP 2005-373316	20051226		
PRAT	JP 2005-373316		20051226				

AB The transfer comprises ≥1 temporal support(s) equipped with ≥1 optically anisotropic layer and ≥1 photosensitive layer made of polymers with average acid value 10-90. The title color filter substrate is manufactured by lamination of the said transfer onto a substrate, removal of the temporal support from the transfer, exposure of the photosensitive layer, and development by removal of the unnecessary photosensitive layer and anisotropic layer. The thus manufactured color filters and liquid crystal displays including the filters are also claimed. Displays with wide color view angles are obtained.

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 4051-63-2, C.I. Pigment Red 177 14302-13-7, C.I. Pigment Green 36
65697-21-4, Benzyl methacrylate-methacrylic acid copolymer 77641-99-7,
Kayarad DPHA 84632-65-5, C.I. Pigment Red 254 271582-84-4,
CF Blue EX 3357 923571-93-1, CF

Yellow EX 3393

RL: TEM (Technical or engineered material use); USES (Uses)
(in photosensitive layer; transfers with optically anisotropic layers
and photosensitive layers for manufacture of color filter substrates in
liquid

crystal displays)

#### IT 271582-84-4, CF Blue EX 3357

RL: TEM (Technical or engineered material use); USES (Uses)
(in photosensitive layer; transfers with optically anisotropic layers
and photosensitive layers for manufacture of color filter substrates in
liquid

crystal displays)

RN 271582-84-4 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3 CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

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PAGE 2-A

L82 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:757536 HCAPLUS Full-text

DN 147:154140

TI Inks, color filters and production method thereof, and displays

IN Gotoh, Hidenori

PA Fujifilm Corporation, Japan

SO PCT Int. Appl., 67pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT	NO.			KIN	D	DATE			APPL	ICAT	ION	NO.		D.	ATE	
						-									_		
ΡI	WO 2007	0777	38		A1		2007	0712		WO 2	006-	JP32	5379		2	0061	220
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	B₩,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KM,	KN,	ΚP,

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KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,
             MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,
             RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
     JP 2007177179
                          Α
                                20070712
                                            JP 2005-380197
                                                                    20051228
PRAI JP 2005-380197
                          Α
                                20051228
     The inks contain \geq 1 monomer and/or an oligomer, and a coloring agent. The
     coloring agent contains 16-56\% of a pigment C.I. P.R. 254 and 4-14\% of a
     pigment C.I.P.R. 177 relative to the solid content of the inks. Alternatively,
     the coloring agent contains 14-49% of a pigment C.I.P.G. 36 and 6-21% of a
     pigment C.I.P.Y. 150 relative to the solid content of the inks. Still
     alternatively, the coloring agent contains 19-51% of a pigment C.I.P.B. 15:6
     and 1.0-2.7% of a pigment C.I.P.V. 23 relative to the solid content of the
     inks. The inks are used for formation of red, green and blue pixels of color
     filers for liquid crystal displays.
CC
     74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
     Section cross-reference(s): 42
ΙT
     271582-84-4, CF Blue EX 3357
     RL: TEM (Technical or engineered material use); USES (Uses)
        (CF Blue EX 3383; inks for production of color filters for liquid crystal
        displays)
ΙΤ
     215247-95-3, C.I. Pigment
     Violet 23
     RL: TEM (Technical or engineered material use); USES (Uses)
        (Hostaperm Violet RL-NF; inks
        for production of color filters for liquid crystal displays)
ΙT
     147-14-8, C.I. Pigment Blue
            923571-93-1, CF Yellow EX 3393
     RL: TEM (Technical or engineered material use); USES (Uses)
        (inks for production of color filters for liquid crystal displays)
ΙT
     271582-84-4, CF Blue EX 3357
     RL: TEM (Technical or engineered material use); USES (Uses)
        (CF Blue EX 3383; inks for production of color filters for liquid crystal
        displays)
RN
     271582-84-4 HCAPLUS
CN
     Copper, [29H, 31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka
     ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-
     dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)
     CM
          1
     CRN 215247-95-3
     CMF C34 H22 C12 N4 O2
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CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

PAGE 2-A

# IT 215247-95-3, C.I. Pigment

Violet 23

RL: TEM (Technical or engineered material use); USES (Uses)

(Hostaperm Violet RL-NF; inks

for production of color filters for liquid crystal displays)

RN 215247-95-3 HCAPLUS

CN Diindolo[2,3-c:2',3'-n]triphenodioxazine, 9,19-dichloro-5,15-diethyl-5,15-

dihydro- (CA INDEX NAME)

IT 147-14-8, C.I. Pigment Blue

15:6

RL: TEM (Technical or engineered material use); USES (Uses) (inks for production of color filters for liquid crystal displays)

RN 147-14-8 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A

25

$$\begin{array}{c|c}
N & \overline{N} & N \\
N & Cu^{2+} & N
\end{array}$$

PAGE 2-A

RETABLE

Referenced Author | Year | VOL | PG | Referenced Work | Referenced (RAU) | (RPY) | (RVL) | (RPG) | (RWK) | File

		- T -		+===			T
Chisso Corp	12001	1	1	JP	2001163951	A	HCAPLUS
Dainippon Printing	Co L 2004			JP	2004339333	Α	HCAPLUS
Dainippon Printing	Co L 2004			JP	2004339358	Α	HCAPLUS
Dainippon Printing	Co L 2004	1		JP	2004339367	Α	HCAPLUS
Hitachi Chemical Co	Ltd 2005	1		JP	2005105114	Α	HCAPLUS

- L82 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
- AN 2007:589043 HCAPLUS Full-text
- DN 147:19835
- TI Liquid crystal displays showing improved viewing angle characteristics, their substrates, and manufacture thereof
- IN Kaneiwa, Hideki; Kaneko, Wakahiko; Tomita, Hidetoshi
- PA Fuji Photo Film Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 49pp. CODEN: JKXXAF
- DT Patent
- LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 2007133279	A	20070531	JP 2005-328293	20051114
PRAI	JP 2005-328293		20051114		

- The process involves these steps; exposing substrates having photosensitive resin layers and optically anisotropic layers, developing, bringing the substrates into contact with adhesive substances (e.g., tapes), and peeling the substances to remove the said layers partially and remain patterns. The optically anisotropic layers may be formed from liquid crystal compound-containing coatings and show mesophase which is fixed by heat treatment or actinic ray irradiation. Thus, LCD substrates equipped with a function as color filters having optically anisotropic layers, can be fabricated in a simple process.
- CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 75
- IT 271582-84-4, CF Blue EX 3357
  - RL: MOA (Modifier or additive use); USES (Uses)

(CF Blue EX 3383, color filter pigments; manufacture of LCD substrates with optically anisotropic layer-formed color filters without increasing number of process steps)

- IT 271582-84-4, CF Blue EX 3357
  - RL: MOA (Modifier or additive use); USES (Uses)
    (CF Blue EX 3383, color filter pigments; manufacture of LCD substrates with optically anisotropic layer-formed color filters without increasing number of process steps)
- RN 271582-84-4 HCAPLUS
- CN Copper, [29H,31H-phthalocyaninato(2-)-kN29,kN30,kN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3

CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

$$\begin{array}{c|c}
N & \overline{N} & N \\
N & Cu & 2+ N \\
N & N-N & N
\end{array}$$

PAGE 2-A

- L82 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
- AN 2007:561335 HCAPLUS <u>Full-text</u>
- DN 146:510641
- TI Photosensitive compositions for color filters, the color filters, method for their manufacture, and liquid crystal displays
- IN Serizawa, Shinichiro

28

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 57pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND DATE		APPLICATION NO.	DATE		
ΡI	JP 2007127818	А	20070524	JP 2005-320123	20051102		
PRAT	JP 2005-320123		20051102	•			

AB The title compns., for 2-dimensional imaging by their scanning with modulated beam, contain binders, monomers or oligomers, and photoinitiators and show ±10% thickness change by exposure under 3-50 mJ/cm2. Color filters are manufactured by application of the said composition onto a substrate, followed by exposure under 3-50 mJ/cm2 and development. Also claimed are color filters prepared by the method and liquid crystal displays equipped with such filters. Patterns with excellent profiles are obtained by short scanning period.

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 73

IT 4051-63-2 14302-13-7, GT-2 84632-65-5, Irgaphor Red B-CF 271582-84-4, CF Blue EX-3357

RL: TEM (Technical or engineered material use); USES (Uses) (dye; photosensitive compns. for preparation of color filters for displays by modulated beam scanning)

IT 271582-84-4, CF Blue EX-3357

RL: TEM (Technical or engineered material use); USES (Uses) (dye; photosensitive compns. for preparation of color filters for displays by modulated beam scanning)

RN 271582-84-4 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-KN29,KN30,KN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3 CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

29

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PAGE 2-A



L82 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:327815 HCAPLUS Full-text

DN 146:326781

TI Formation of patterns with smooth edge line by laser direct imaging, color filters having the patterns, and liquid crystal displays having the filters

IN Minami, Kazumori; Tanaka, Mitsutoshi; Okazaki, Yoji; Sumi, Katsuhito; Mushano, Mitsuru

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 97pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
•					
ΡI	JP 2007071957	A	20070322	JP 2005-256238	20050905
PRAI	JP 2005-256238		20050905		

AB The pattern formation method involves (A) depositing a photoimaging layer comprising binders, polymerizable compds., photoinitiators, and pigments on a substrate, (B) imagewise exposing the layer by scanning with an exposure head having two-dimensionally aligned light sources, and (C) developing the exposed layer with an agent at pH 8-13, wherein, in the developing process, the surface portion of the non-exposed part of the photoimaging layer retains for ≥3 s. The exposure head is characterized in that the lines of the light

30

sources have a certain angle to the scanning direction. The exposure head may be equipped with digital micromirror devices (DMD). Serrated edges on patterned layers are prevented with this invention.

- CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- IT 147-14-8, C.I. Pigment Blue

15:6 4051-63-2, C.I. Pigment Red 177 14302-13-7, C.I. Pigment Green 36 17527-29-6 26403-58-7 50858-51-0 77641-99-7, Kayarad DPHA 84632-65-5, C.I. Pigment Red 254 271582-84-4,

CF Blue EX 3357 872613-79-1, C.I.

Pigment Yellow 150 923571-93-1, CF Yellow EX 3393

RL: TEM (Technical or engineered material use); USES (Uses)

(formation of patterns with smooth edge line by laser direct imaging for LCD color filters)

IT 147-14-8, C.I. Pigment Blue

15:6 271582-84-4, CF Blue

EX 3357

RL: TEM (Technical or engineered material use); USES (Uses) (formation of patterns with smooth edge line by laser direct imaging for LCD color filters)

RN 147-14-8 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 271582-84-4 HCAPLUS

CN Copper, [29H, 31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka

ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3

CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

PAGE 2-A

10 / 591578 32

- L82 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
- AN 2007:169990 HCAPLUS Full-text
- DN 146:262598
- TI Photosensitive compositions, photosensitive films, mask-less manufacture of color filters, and their color filters and LCD
- IN Yoshinari, Shinichi; Sawano, Mitsuru; Sato, Morimasa
- PA Fuji Photo Film Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 93pp. CODEN: JKXXAF
- DT Patent
- LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2007041282	A	20070215	JP 2005-225311	20050803
PRAI JP 2005-225311		20050803		

- AΒ The photosensitive compns. contain at least photopolymn. initiators, ethylenically reactive group-containing photopolymerizable compds., and nonphotosensitive curable components which do not contribute photocuring reaction, wherein the photosensitive compns. give photosensitive layers having variation in spectral sensitivity -8 to +8% corresponding to ±10 nm change from the center value of laser irradiation wavelength and the photosensitive layers are subjected to relative scanning while light is modulated by using an aligner having ≥2 laser heads. Preferably, the nonphotosensitive curable components comprise macromol. compds. free from crosslinkable groups, colorants, or inorg. fillers. The photosensitive films are prepared by applying the photosensitive compns. on substrates and subsequently by drying. The photosensitive compns. are applied on substrates and dried to give photosensitive films, which are exposed to light and developed to give color filters for LCD. In another alternative, the photosensitive films are laminated on substrate's surface upon heat or pressure, exposed to light, and developed to give color filters. The photosensitive compns. may be pigmented with black (K). In another alternative, photosensitive compns. may be pigmented with red (R), green (G), or blue (B) and color filters are formed by preparation photosensitive layers, light irradiation, and development on a substrate and for each RGB color in order. Preferably, the red (R) colorants comprise C.I. Pigment Red 254, the green (G) colorants comprise C.I. Pigment Green 36 and/or C.I. Pigment Yellow 139, and the blue (B) colorants comprise C.I. Pigment Blue 15:
  - 6. In another alternative, the red (R) colorants comprise C.I. Pigment Red 254 and/or C.I. Pigment Red 177, the green (G) colorants comprise C.I. Pigment Green 36 and/or C.I. Pigment Yellow 150 (B), and the blue (B) colorants comprise C.I. Pigment Blue 15:6 and/or C.I. Pigment Violet 23.
- CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
  Section cross-reference(s): 38, 73
- IT 271582-84-4, CF Blue EX 3357
  - RL: TEM (Technical or engineered material use); USES (Uses) (CF Blue EX 3383; photosensitive compns. and their photosensitive films for mask-less manufacture of color filters for LCD)
- 147-14-8, C.I. Pigment Blue
  15:6 4051-63-2, C.I. Pigment Red 177 9003-20-7D,
  Poly(vinyl acetate), partially saponified 14302-13-7, C.I. Pigment Green 36
  25085-34-1, Acrylic acid-styrene copolymer 36888-99-0, C.I. Pigment
  Yellow 139 41637-38-1, 2,2-Bis[4-(methacryloxypolyethoxy)phenyl]propane]
  65697-21-4, Benzyl methacrylate-methacrylic acid copolymer 72145-60-9,

Benzyl methacrylate-methacrylic acid-methyl methacrylate copolymer 77641-99-7, Kayarad DPHA 84632-65-5, C.I. Pigment Red 254 120659-23-6, Benzyl methacrylate-2-ethylhexyl acrylate-methacrylic acid-methyl methacrylate copolymer 215247-95-3, C.I.

Pigment Violet 23 872613-79-1, C.I. Pigment

Yellow 150 923571-93-1, CF Yellow EX 3393

RL: TEM (Technical or engineered material use); USES (Uses) (photosensitive compns. and their photosensitive films for mask-less manufacture of color filters for LCD)

IT 271582-84-4, CF Blue EX 3357

RL: TEM (Technical or engineered material use); USES (Uses) (CF Blue EX 3383; photosensitive compns. and their photosensitive films for mask-less manufacture of color filters for LCD)

RN 271582-84-4 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-KN29,KN30,KN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3 CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

$$\begin{array}{c|c}
N & N & N \\
N & Cu^{2+} & N \\
N & N & N
\end{array}$$

PAGE 2-A



IT 147-14-8, C.I. Pigment Blue

15:6 215247-95-3, C.I.

Pigment Violet 23

RL: TEM (Technical or engineered material use); USES (Uses) (photosensitive compns. and their photosensitive films for mask-less manufacture of color filters for LCD)

RN 147-14-8 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)- $\kappa$ N29, $\kappa$ N30, $\kappa$ N31,.ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c|c}
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N & Cu^{2+} & N \\
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PAGE 2-A

RN 215247-95-3 HCAPLUS

CN Diindolo[2,3-c:2',3'-n]triphenodioxazine, 9,19-dichloro-5,15-diethyl-5,15-dihydro- (CA INDEX NAME)

L82 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:169917 HCAPLUS Full-text

DN 146:238939

TI Photosensitive resin composition for making color filter used in liquid crystal display and production method of color filter

IN Kashiwagi, Daisuke; Tanaka, Mitsutoshi; Matsumoto, Hirotaka

PA Fujifilm Holdings Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 73pp. CODEN: JKXXAF

36

DT Patent LA Japanese

FAN.CNT 1

OS MARPAT 146:238939

The invention relates to a photosensitive resin composition for making a color filter used in a liquid crystal display (LCD), comprising (A) binders, (B) an ethylenic unsatd. compds. (C) photoinitiators including hexaarylbiimidazoles, and (D) spectral sensitizers. The high definition images are realized by exposing the photosensitive resin composition to the 350-420 nm light through a 2-dimensionally arranged spatial modulator with the scanning speed of 5-3000 mm/s.

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 38, 42, 74

IT 4051-63-2, C.I. Pigment Red 177 14302-13-7, C.I. Pigment Green 36
77641-99-7, Kayarad DPHA 84632-65-5, C.I. Pigment Red 254
271582-84-4, CF Blue EX 3357

923571-93-1, CF Yellow EX 3393

RL: TEM (Technical or engineered material use); USES (Uses) (photosensitive resin composition for making color filter used in liquid crystal display)

IT 271582-84-4, CF Blue EX 3357

RL: TEM (Technical or engineered material use); USES (Uses) (photosensitive resin composition for making color filter used in liquid crystal display)

RN 271582-84-4 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3 CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8 CMF C32 H16 Cu N8 CCI CCS 10 / 591578

PAGE 1-A

PAGE 2-A



L82 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:145210 HCAPLUS Full-text

DN 146:216088

TI Color filter forming material, and manufacturing method of color filter for liquid crystal display

IN Nakamura, Hideyuki; Matsumoto, Kazuhiko; Sumi, Katsuhito

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 95pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

AB The invention relates to a color filter forming material, suited for use in making a color filter equipped to a liquid crystal display, using a maskless lithog. method, comprising a binder, a polymerizable material, a photoinitiator, and a coloring agent. The light-sensitive layer made of the color filter forming material is characterized in that the photosensitivity is 0.1-100 mJ/cm2, the thickness of the developed light-sensitive layer that is irradiated by the 100-55% exposure value of the photosensitivity is 90-110 % of the initial thickness of the light-sensitive layer, and the thickness of

10 / 591578

38

the developed light-sensitive layer irradiated by the 45% exposure value is  $\leq$  10 % of the initial thickness of the light-sensitive layer.

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 74

ΙT 4051-63-2, C.I. Pigment Red 177 14302-13-7, C.I. Pigment Green 36 43135-91-7D, 2H-Benzimidazol-2-one, derivs. 65697-21-4, Benzyl methacrylate-methacrylic acid copolymer 72145-60-9, Benzyl methacrylate-methacrylic acid-methyl methacrylate copolymer 77641-99-7, Kayarad DPHA 84632-65-5, C.I. Pigment Red 254 271582-84-4, CF Blue EX 3357 682350-53-4, Plaad ED 152 923571-93-1, CF Yellow EX 3393 RL: TEM (Technical or engineered material use); USES (Uses)

RL: TEM (Technical or engineered material use); USES (Uses) (color filter forming material making color filter for liquid crystal display)

IT 271582-84-4, CF Blue EX 3357

RL: TEM (Technical or engineered material use); USES (Uses) (color filter forming material making color filter for liquid crystal display)

RN 271582-84-4 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-kN29,kN30,kN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3 CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8 CMF C32 H16 Cu N8

CCI CCS

10 / 591578 39

PAGE 1-A

$$\begin{array}{c|c}
N & \overline{N} & N \\
N & Cu^{2+} & N
\end{array}$$

PAGE 2-A

ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN

2006:53378 HCAPLUS Full-text ΑN

DN 144:139082

ΤI Color filter, its manufacture, and its use in liquid crystal display

Sato, Morimasa; Tanaka, Mitsutoshi IN

PΑ Fuji Photo Film Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 92 pp. SO

CODEN: JKXXAF

DT Patent

Japanese LA

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	JP 2006018221	A	20060119	JP 2005-67982	20050310		
PRAI	JP 2004-163391	Α	20040601				

AΒ The filter is manufactured by (1) forming a photosensitive layer on a substrate with a composition containing binders, polymerizable compds., colorants, and photopolymn. initiators, (2) modulating light from a light irradiation means with an optical modulator having n number of pixel-drawing parts and exposing the photosensitive layer with light passed through a microlens array having (a) arranged nonspherical microlenses capable of correcting aberration caused by strain of outputting surface in the pixel drawing parts or (b) arranged microlenses having aperture through which light from the surrounding parts of the pixel-drawing parts can not be income, and (3) developing the exposed photosensitive layer. The method suppresses

unevenness of the color filter, and the filter is suitable for liquid crystal displays, portable game machines, notebook PC, television monitors, etc.

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 73

IT 271582-84-4, CF Blue EX 3383

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(CF Blue EX 3357, filter

colored with; color filter and its manufacture by exposing photosensitive layer with modulated and microlens array-passed light for liquid crystal display)

IT 147-14-8, C.I. Pigment Blue

15:6 4051-63-2, C.I. Pigment Red 177

215247-95-3, C.I. Pigment

Violet 23 872613-79-1, C.I. Pigment Yellow 150

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(filter colored with; color filter and its manufacture by exposing photosensitive layer with modulated and microlens array-passed light for liquid crystal display)

IT 271582-84-4, CF Blue EX 3383

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(CF Blue EX 3357, filter

colored with; color filter and its manufacture by exposing photosensitive layer with modulated and microlens array-passed light for liquid crystal display)

RN 271582-84-4 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3 CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

$$\begin{array}{c|c}
N & \overline{\phantom{a}} & N \\
N & \overline{\phantom{a}} & N \\
N & Cu^{2+} & N \\
N & N^{-} & N
\end{array}$$

PAGE 2-A



IT 147-14-8, C.I. Pigment Blue

15:6 215247-95-3, C.I.

Pigment Violet 23

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(filter colored with; color filter and its manufacture by exposing photosensitive layer with modulated and microlens array-passed light for liquid crystal display)

RN 147-14-8 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)- $\kappa$ N29, $\kappa$ N30, $\kappa$ N31,.ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 215247-95-3 HCAPLUS

CN Diindolo[2,3-c:2',3'-n]triphenodioxazine, 9,19-dichloro-5,15-diethyl-5,15-dihydro- (CA INDEX NAME)

L82 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:351232 HCAPLUS <u>Full-text</u>

DN 133:5965

TI Pigments as ink additives for improving wear resistance of writing and printing devices, and ink compositions containing the additives

IN Piel, Merten

PA Rotring International Gmbh & Co Kg, Germany

SO Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

43

DT Patent LA German

FAN.CNT 1

	PATENT NO.				KIND		DATE		APPLICATION NO.							DATE			
						-			-										
ΡI	PI EP 1002841 EP 1002841			A2		2000	EP 1999-250389						19991103						
					A3	3 20010502													
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	IT,	, LI,	LU,	NL,	SE,	MC,	PT,	
			ΙE,	SI,	LT,	LV,	FI,	RO											
	DE	: 19855014			A1		2000	0525	D	ÞΕ	1998	-1985	5014		1	9981	120		
	KR	KR 2000035518 JP 2000160090				Α		2000	0626	K	ŔR	1999-	-5099	0		1	9991	117	
	JP					Α		2000	0613	J	JΡ	1999	<del>-</del> 3310	61		1	9991	122	
PRAI	DE	1998	-198	5501	4	А		1998	1120										

AB Wear resistance of title devices, e.g., ball-point pens, is improved by adding carbon black, especially channel carbon black, furnace carbon black or lamp black (<0.1% based on ink composition) or organic pigments, especially azo or phthalocyanine pigments or their mixts. (<1.0% based on ink composition) to the ink composition

IC ICM C09D0011-16

ICS C09D0011-02

CC 42-11 (Coatings, Inks, and Related Products)

IT **147-14-8**, Hostafine Blue B 2G 3520-42-1, Duasyn Acid Rhodamine B 01 122464-59-9, Bayscript Black SP **215247-95-3**,

Pigment Violet 23 271582-84-4,

Flexonyl Violet RL-LA

RL: TEM (Technical or engineered material use); USES (Uses) (pigment; pigments as ink additives for improving wear resistance of writing and printing devices)

147-14-8, Hostafine Blue B 2G 215247-95-3,

Pigment Violet 23 271582-84-4,

Flexonyl Violet RL-LA

RL: TEM (Technical or engineered material use); USES (Uses) (pigment; pigments as ink additives for improving wear resistance of writing and printing devices)

RN 147-14-8 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)- $\kappa$ N29, $\kappa$ N30, $\kappa$ N31,.ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 215247-95-3 HCAPLUS

CN Diindolo[2,3-c:2',3'-n]triphenodioxazine, 9,19-dichloro-5,15-diethyl-5,15-dihydro- (CA INDEX NAME)

RN 271582-84-4 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME)

CM 1

CRN 215247-95-3 CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

PAGE 2-A

L82

DK 149780

ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN 1981:570978 HCAPLUS <u>Full-text</u> ΑN DN 95:170978 ΤI Imidazolylmethyl group-containing dyes IN Patsch, Manfred; Ruske, Manfred PΑ BASF A.-G., Fed. Rep. Ger. SO Ger. Offen., 34 pp. CODEN: GWXXBX DT Patent LΑ German FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE -----PΙ DE 3006013 19810820 DE 1980-3006013 Α1 19800218 EP 34725 A2 19810902 EP 1981-100672 19810130 EP 34725 A3 19820804 EP 34725 В1 19840725 R: BE, CH, DE, FR, GB, IT US 4451398 Α 19840529 US 1981-233479 19810211 CA 1170254 A1 19840703 CA 1981-370638 19810211 JP 56129259 Α 19811009 JP 1981-20261 19810216 JP 01048303 В 19891018 DK 8100687 Α DK 1981-687 19810217 19810819 DK 149780 В 19860929

19870421

С

PRAI DE 1980-3006013 A 19800218 DE 1980-3044563 A 19801126

GΙ

Dyes with general structure I are prepared, where R, R1, and R2 = H, alkyl, or alkenyl, R3 = alkyl, X- = anion, Q represents a phthalocyanine, indigoid, Phsubstituted anthraquinone, polycyclic carbonyl, quinacridone, perylenetetracarboxylic diimide, anthrapyrimidine, pyrazoloanthrone, diaminonaphthoquinone, naphthazarin, or naphthalenetetracarboxylic diimide dye residue, m = 0-5, n = 0-5, and  $1 \le (m + n) \le 5$ . I in which n > 0 are soluble in water and can be used to dye cellulosic materials, e.g. paper. The dyes are prepared by reaction of QHm+n with imidazoles and paraformaldehydes or with C-(hydroxymethyl)imidazoles in the presence of acid, optionally followed by quaternization.

IC C09B0069-00

CC 40-1 (Dyes, Fluorescent Whitening Agents, and Photosensitizers) Section cross-reference(s): 43

81-31-2DP, reaction products with 1-methylimidazole and paraformaldehyde 82-20-2DP, reaction products with 4-(hydroxymethyl)-5-methylimidazole 128-64-3DP, reaction products with 1-methylimidazole and paraformaldehyde 128-66-5DP, reaction products with 1-methylimidazole and paraformaldehyde 128-70-1DP, reaction products with 1-methylimidazole and paraformaldehyde, di-Me

128-80-3DP, reaction products with 4-(

hydroxymethyl) -5-methylimidazole 129-09-9DP,

reaction products with 4-(hydroxymethyl)-5-

methylimidazole 132-16-1DP, reaction products with 4-(

hydroxymethyl) -5-methylimidazole

sulfate-quaternized

147-14-8DP, imidazolylmethyl derivs. 288-32-4DP, reaction products with copper phthalocyanine and paraformaldehyde 522-75-8DP, reaction products with 4-(hydroxymethyl)-5-

methylimidazole 616-47-7DP, reaction products with aromatic compds. and paraformaldehyde, di-Me sulfate-quaternized 1072-63-5DP, reaction products with copper phthalocyanine and paraformaldehyde 4118-16-5DP, reaction products with 1-methylimidazole and paraformaldehyde

6505-58-4DP, reaction products with 4-(hydroxymethyl)-

5-methylimidazole 7098-07-9DP, reaction products with

aromatic compds. and paraformaldehyde 13435-22-8DP, reaction products with copper phthalocyanine and paraformaldehyde 14154-42-8DP, reaction products with 1-methylimidazole and paraformaldehyde 36947-68-9DP, reaction products with copper phthalocyanine and paraformaldehyde

52333-12-7DP, reaction products with 4-(hydroxymethyl

)-5-methylimidazole 79499-09-5DP, reaction products

with 4-(hydroxymethyl)-5-

methylimidazole 79554-26-0P 79554-27-1P 79554-28-2P 79554-29-3P 79554-30-6P 79554-51-1P 79554-53-3P 79554-54-4P 79554-58-8P 79554-99-7P 80019-16-5DP, reaction products with 4

- (hydroxymethyl) -5-methylimidazole

RL: MSC (Miscellaneous); PREP (Preparation)

(dyes, manufacture of)

IT 38585-62-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with aromatic compds.)

IT 147-14-8DP, imidazolylmethyl derivs.

RL: MSC (Miscellaneous); PREP (Preparation)
 (dyes, manufacture of)

RN 147-14-8 HCAPLUS

CN Copper, [29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,.ka ppa.N32]-, (SP-4-1)- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

IT 38585-62-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with aromatic compds.)

RN 38585-62-5 HCAPLUS

CN 1H-Imidazole-5-methanol, 4-methyl-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

=> => fil reg FILE 'REGISTRY' ENTERED AT 13:01:38 ON 21 NOV 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 20 NOV 2007 HIGHEST RN 955158-15-3 DICTIONARY FILE UPDATES: 20 NOV 2007 HIGHEST RN 955158-15-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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L68 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN RN 271582-84-4 REGISTRY

ED Entered STN: 20 Jun 2000

CN Copper, [29H,31H-phthalocyaninato(2-)-kN29,kN30,kN31,.ka ppa.N32]-, (SP-4-1)-, mixt. with 9,19-dichloro-5,15-diethyl-5,15-dihydrodiindolo[2,3-c:2',3'-n]triphenodioxazine (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES:

CN Hostafine Blue B 2G, mixt. contg. (9CI)

OTHER NAMES:

CN CF Blue EX 3357

CN CF Blue EX 3383

CN Flexonyl Violet RL-LA

MF C34 H22 C12 N4 O2 . C32 H16 Cu N8

CI MXS

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 215247-95-3

CMF C34 H22 C12 N4 O2

CM 2

CRN 147-14-8

CMF C32 H16 Cu N8

CCI CCS

PAGE 1-A

$$\begin{array}{c|c} & & & \\ & & & \\$$

PAGE 2-A



14 REFERENCES IN FILE CA (1907 TO DATE)

14 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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REFERENCE 2: 147:408531

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             4:
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                146:510641
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            9: 146:326781
REFERENCE 10: 146:262598
=> d ide can 169
L69 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
RN
     147-14-8 REGISTRY
ED
     Entered STN: 16 Nov 1984
CN
     Copper, [29H, 31H-phthalocyaninato(2-)-KN29, KN30, KN31, .ka
     ppa.N32]-, (SP-4-1)- (CA INDEX NAME)
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     29H, 31H-Phthalocyanine, copper deriv.
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CN
     \alpha-Copper phthalocyanine
CN
     \alpha-Copper phthalocyanine blue
CN
     \alpha-Phthalocyanine blue
CN
     \beta-Copper phthalocyanine blue
CN
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     ε-Copper phthalocyanine
CN
CN
     79S26C
     79S26C chip
CN
CN
     Accosperse Cyan Blue GT
CN
     Acnalin Supra Blue G
CN
     Acramin Blue F 3G
CN
     Akrochem 626
CN
     Aqualine Blue
     Aquis BW 3571
CN
CN
     Arlocyanine Blue PS
CN
     Aztech Chemisperse Cyan 1541
CN
     B 8M25
CN
     Bahama Blue BC
     Bahama Blue BNC
CN
     Bahama Blue Lake NCNF
CN
     Bahama Blue WD
CN
CN
     Bermuda Blue
CN
     BFD 1121
CN
     BL 1531
CN
     Blue 7110V
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     Blue GLA
CN
     Blue GLSM
CN
     Blue Microdis
CN
     Blue phthalocyanaine \alpha-form
CN
     Blue pigment
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Blue Toner GTNF
CN
     BT 4651
ÇN
CN
     C.I. 74160
CN
     C.I. Pigment Blue 15
     C.I. Pigment Blue 15:1
CN
CN
     C.I. Pigment Blue 15:2
CN
     C.I. Pigment Blue 15:3
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     C.I. Pigment Blue 15:6
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     Cab-O-Jet 253
CN
     Calcotone Blue GP
CN
     Ceres Blue BHR
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     109675-77-6, 109766-95-2, 66121-19-5, 37223-81-7, 69431-77-2, 78170-27-1,
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     CCS, COM
LC
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       CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*,
       EMBASE, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
       MSDS-OHS, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, USPAT2, USPATFULL,
       USPATOLD
```

(\*File contains numerically searchable property data)
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

PAGE 1-A

$$\begin{array}{c|c}
N & \overline{N} & N \\
N & Cu & 2+ N \\
N & N-N & N
\end{array}$$

PAGE 2-A



### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

16422 REFERENCES IN FILE CA (1907 TO DATE)

1233 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

16458 REFERENCES IN FILE CAPLUS (1907 TO DATE)

134 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 147:478113

REFERENCE 2: 147:477779

REFERENCE 3: 147:477661

REFERENCE 4: 147:477649

REFERENCE 5: 147:477613

REFERENCE 6: 147:477503

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REFERENCE 8: 147:477105

REFERENCE 9: 147:477062

REFERENCE 10: 147:475312

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L70 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN **215247-95-3** REGISTRY

ED Entered STN: 08 Dec 1998

CN Diindolo[2,3-c:2',3'-n]triphenodioxazine, 9,19-dichloro-5,15-diethyl-5,15-dihydro- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN C.I. Pigment Violet 23 (8CI)

#### OTHER NAMES:

CN C.I. 51319

CN Carbazole Dioxazine Violet

CN Carbazole Violet

CN Carbazole Violet 23

CN CFP-FF 802V

CN Chromofine Violet 6510PK

CN Chromofine Violet RE

CN Cosmenyl Violet RL

CN Creanova 877-8895

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     Cromophtal Violet GT
CN
     Cyanadur Violet
CN
     Dioxazine purple
CN
     Dioxazine Violet
CN
     EB Violet 4B7906
CN
     EMC Violet RL 10
CN
     Fastogen Super Violet RN
CN
     Fastogen Super Violet RN-S
CN
     Fastogen Super Violet RTS
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     Fastogen Super Violet RVS
CN
     Fastogen Super Violet RXS
CN
     Heliofast Red Violet EE
CN
     Heliofast Violet BN
     Heliogen Violet
CN
     Heliogen Violet R Toner
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CN
     Hostaperm Violet BL
     Hostaperm Violet P-RL
CN
CN
     Hostaperm Violet RL
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     Hostaperm Violet RL Special
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     Hostaperm Violet RL Special 14-4007
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     Hostaperm Violet RL-NF
CN
     Hostaperm Violet RL-SP
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     Lionogen Violet HR
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     Lionogen Violet R 6100
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     Lionogen Violet R 6200
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     Lionol Violet HR
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     Monolite Fast Violet R
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     Paliogen Violet 5890
     Paliogen Violet L 5890
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     Permanent Violet R
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CI
     COM
SR
     CA
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BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, TOXCENTER,

LC

STN Files:

USPAT2, USPATFULL, USPATOLD

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

995 REFERENCES IN FILE CA (1907 TO DATE)
50 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
996 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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REFERENCE 2: 147:477649

REFERENCE 3: 147:459014

REFERENCE 4: 147:458975

REFERENCE 5: 147:450506

REFERENCE 6: 147:450393

REFERENCE 7: 147:450388

REFERENCE 8: 147:437074

REFERENCE 9: 147:416466

REFERENCE 10: 147:409604

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L74 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2007 ACS on STN

RN **38585-62-5** REGISTRY

ED Entered STN: 16 Nov 1984

CN 1H-Imidazole-5-methanol, 4-methyl-, hydrochloride (1:1) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1H-Imidazole-4-methanol, 5-methyl-, monohydrochloride (9CI)

OTHER NAMES:

CN 4-(Hydroxymethyl)-5-methylimidazole hydrochloride

CN 4-Methyl-1H-imidazole-5-methanol hydrochloride

CN 4-Methyl-5-imidazolemethanol hydrochloride

CN 5-Methyl-4-imidazolemethanol hydrochloride

DR 121081-11-6, 63779-46-4, 81731-50-2

MF C5 H8 N2 O . C1 H

LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, PS, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)
CRN (29636-87-1)

HC1

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

108 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
108 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 147:78823

REFERENCE 2: 146:421419

REFERENCE 3: 143:287911

REFERENCE 4: 143:8585

REFERENCE 5: 141:17250

REFERENCE 6: 139:180012

REFERENCE 7: 139:142726

REFERENCE 8: 139:73860

REFERENCE 9: 137:247693

REFERENCE 10: 136:340627

L74 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2007 ACS on STN

RN **29636-87-1** REGISTRY

ED Entered STN: 16 Nov 1984

CN 1H-Imidazole-5-methanol, 4-methyl- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1H-Imidazole-4-methanol, 5-methyl- (9CI)

CN Imidazole-4(or 5)-methanol, 5(or 4)-methyl- (7CI)

CN Imidazole-4-methanol, 5-methyl- (8CI)

OTHER NAMES:

CN 4-(Hydroxymethyl)-5-methylimidazole

CN 4-Methyl-5-(hydroxymethyl)imidazole

CN 4-Methyl-5-imidazolemethanol

CN 5-(Hydroxymethyl)-4-methylimidazole

CN 5-Methyl-1H-imidazole-4-methanol

CN 5-Methyl-4-imidazolemethanol

MF C5 H8 N2 O

CI COM

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, IFICDB, IFIPAT, IFIUDB, PS, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

126 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

127 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 147:392800

REFERENCE 2: 147:370595

REFERENCE 3: 147:95656

REFERENCE 4: 147:78823

REFERENCE 5: 146:229348

REFERENCE 6: 146:27689

REFERENCE 7: 145:301380

REFERENCE 8: 145:198440

REFERENCE 9: 145:83289

REFERENCE 10: 144:241883

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18 S E3 E WEBER J/AU

L3 1498 S E15-E54

E WEBER JOACHIM/AU

L4 121 S E75, E76

E CLARIANT/CO

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L_5
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                E E135+ALL
                E E229+ALL
L6
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L7
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L9
               STR
L10
              2 S L9
L11
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               SAV TEMP L11 GREEN591A/A
L12
              1 S L8 AND NCNC2/ES
L13
              1 S L8 NOT L11, L12
                E "C.I. PIGMENT BLUE"/CN
L14
              1 S E271, E273-E276, E278
L15
              1 S L13, L14
L16
             12 S L11 AND C34H22CL2N4O2
L17
             1 S L16 AND CU/ELS
L18
             1 S L16 AND 1/NC
L19
             38 S L11 NOT L16
L20
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L22
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L23
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L24
             14 S L21-L23
           1001 S L18
L25
L26
            462 S (CI OR C I) () PIGMENT VIOLET 23
L27
             7 S SUMITONE FAST VIOLET RL 4R
L28
           579 S PIGMENT VIOLET 23
L29
            16 S HOSTAPERM VIOLET RL NF
L30
             7 S HOSTAPERM VIOLET RL SPECIAL
L31
             6 S HOSTAPERM VIOLET BL
L32
             2 S SUMITOMO FAST VIOLET RL BASE
L33
           56 S CARBAZOLE VIOLET
L34
             7 S PERMANENT VIOLET RL
L35
             2 S HOSTAPERM VIOLET RLNF
L36
             7 S FASTOGEN SUPER VIOLET RN
L37
            3 S LIONOGEN VIOLET R 6100
L38
          136 S DIOXAZINE VIOLET
L39
           22 S LIONOGEN VIOLET RL
L40
            3 S CFP FF 802V
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             7 S (CI OR C I) () 51319
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            38 S HOSTAPERM VIOLET RL
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          1051 S L25-L43
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L45
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L46
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         16604 S L45, L46
L48
           127 S L12
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L49
L50
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            18 S 5 HYDROXYMETHYL 4 METHYLIMIDAZOLE
L52
L53
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L62
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L71
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            2 S L72 AND C5H8N2O
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L74
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L82
           15 S L76 NOT L81
    FILE 'HCAPLUS' ENTERED AT 12:58:48 ON 21 NOV 2007
```

FILE 'REGISTRY' ENTERED AT 13:01:38 ON 21 NOV 2007

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